ELOCHUKWU, CHUKWUBUIKEM JOSEPH

NRI Technical Institute, Karu, Nasarawa State, Nigeria.

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EDUCATION

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI. (JUNE, 2023)

- Awarded as the Overall Best Graduating Student out of over 2,500 graduates in 2023.
- CGPA: 4.91 / 5.00 (First Class Honours)
- **Research Interest:** Machine Learning, Data Science, Cybersecurity, and Cloud Development.

RESEARCH EXPERIENCES

ARTIFICIAL INTELLIGENCE RESEARCH ASSISTANT, NRI TECHNICAL INSTITUTE, KARU, NASARAWA STATE. (NOVEMBER, 2024 – PRESENT)

Topic: Adaptive Organisational Cybersecurity Maturity (AOCM) Model Using Machine Learning

- Conducted an in-depth review of literature focusing on capacity and capability metrics for measuring adaptive cybersecurity maturity in an organisational context.
- Participated in focus group meeting and analyzed the minutes for requirement gathering.
- Contributed to the development of the AOCM Framework.
- Prepared a manuscript for publication which is currently under review.
- Currently developing the Framework's proof-of-concept artefact using Python's flask framework.

GRADUATE ASSISTANT, CENTER FOR CYBERSPACE STUDIES, NASARAWA STATE UNIVERSITY, KEFFI, NASARAWA STATE. (JUNE, 2023 – NOVEMBER, 2024)

Topic: Machine Intelligence Support System for Offensive Cyber Operations

- Assisted Professor Uche Mbanaso of the Center for Cyberspace Studies in his research
- Wrote reviewed literature, analyzed project data, developed proof-of-concept artefact and reported findings.
- Contributed to the development of the Machine Intelligence Cyber Operation (MICO) Framework.
- Trained, evaluated and deployed MLP models using scikit-learn into a Flask web application for intelligent reconnaissance.
- Prepared manuscripts for publication, one of which has been presented at an IEEE Nigeria international conference and published on IEEE Xplore.

PROJECT STUDENT, COMPUTER SCIENCE DEPARTMENT, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI, IMO STATE. (SEPTEMBER, 2021 – JANUARY, 2023)

Topic: An Intelligent Progressive Web Based System for Primary Health Facilities in Nigeria

- Conducted field research at two medical centers to gather system requirements through observation, surveys, and interviews.
- Applied Object-Oriented Analysis and Design Methodology, and Object-Oriented SDLC for system analysis, design and development.
- Developed an Intelligent Progressive Web-Based Hospital Management System for FUTO medical center using LAMP (Linux, Apache, MySQL and PHP) development stack, Azure AI, and JavaScript.
- Implemented robust security measures, achieving 90% system performance, and 100% in accessibility and PWA testing on Lighthouse.
- Prepared two manuscripts, presented at an international conference and published as conference proceedings after double blind peer-review.

WORK EXPERIENCES

COURSE INSTRUCTOR, ARTIFICIAL INTELLIGENCE WITH PYTHON, NRI TECHNICAL INSTITUTE, KARU, NASARAWA STATE. (NOVEMBER, 2024 – DATE)

- Contributed to the development of a comprehensive course curriculum covering key AI concepts and Python programming skills, spanning beginner to advanced levels.

- Currently creating engaging and informative course materials, including lecture notes, assignments and assessments.

GRADUATE ASSISTANT, CENTER FOR CYBERSPACE STUDIES, NASARAWA STATE UNIVERSITY, KEFFI, NASARAWA STATE. (JUNE 2023 – OCTOBER, 2024)

- Designed slides and presented physical and online lectures on the Introduction to programming course for data science post graduate diploma students, and set exams for 13 students.
- Designed and led hands on practical session on introduction to python programming as part of the Research Methodology course for computer science undergraduate third year students.
- Conducted two practical sessions during the one-week introduction to python for data science workshop for 16 data science post-graduate students.

PROGRAMS COORDINATOR, SHUAIBU IBRAHIM E-LIBRARY, NASARAWA, NASARAWA STATE. [ONE YEAR NATIONAL YOUTH SERVICE] (DECEMBER 2023 – OCTOBER, 2024)

- Prepared 267 students for their 2024 Joint Admissions and Matriculations Board examination.
- Provided mentorship and guidance to secondary school students on career choice and university education preparation.
- Taught computer appreciation course, presented classes and practical sessions on the basic use of computer and some computer applications to 46 students.

UNDERGRADUATE INTERN (SERVICE MANAGEMENT TEAM), HUAWEI TECHNOLOGIES COMPANY NIGERIA LIMITED, LEKKI LAGOS STATE (MAY – SEPTEMBER, 2021)

- Outsourced to the 9mobile service desk under Huawei Service Management team.
- Analyzed weekly downtime reports, and presented weekly excel reports to my supervisor which helped in service level agreement decision making.
- Came top 1% in the company's MySQL Database Management Test.

UNDERGRADUATE INTERN (SOFTWARE DEVELOPMENT TEAM), DEACONS DIGITAL SOLUTIONS, ONITSHA, ANAMBRA STATE (AUGUST 2020 – MAY, 2021)

- Participated in the backend development of a podcast and e-learning website using LAMP (Linux, Apache, MySQL and PHP) development stack.
- Enhanced the applications into a progressive web app (PWA) which improved overall user experience.

PUBLICATIONS

CONFERENCE PAPERS

G. S. Abdullahi, U. M. Mbanaso, **C. J. Elochukwu** and S. A. Muhammad, "Conceptual Design of Machine Intelligence Offensive Cyber Operations," 2024 IEEE 5th International Conference on Electro-Computing Technologies for Humanity (NIGERCON), Ado Ekiti, Nigeria, 2024, pp. 1-5, doi: 10.1109/NIGERCON62786.2024.10927018.

Elochukwu C., Njoku D., Onyemauche U., Okpalla C., Okolie S., and Ikwuazom C., "Leveraging AI Chat Bots and Messaging Platforms for Remote Healthcare Delivery in Nigeria." International Conference on Technological Solutions for Smart Economy (SmartEco 2024), Nigeria Computer Society, 2024.

Elochukwu C., Njoku D., Okpalla C. and Odii J., "Progressive Web Application for Seamless Primary Healthcare Delivery in Nigeria." International Conference on Technological Solutions for Smart Economy (SmartEco 2024), Nigeria Computer Society, 2024.

TRAININGS AND CERTIFICATIONS

COURSERA.

IBM AI Engineering Professional Specialization (Ongoing)

AI for Scientific Research Specialization Certificate (October, 2023).

Google IT Support Professional Specialization Certificate (April, 2023).

Python for Everybody Specialization (June, 2022).

Python 3 Programming Specialization Certificate (August, 2022).

NIGERIAN COMMUNICATION COMMISSION

Workshop on Cyber Security Awareness, Nasarawa State University, Keffi (June, 2023).

CISCO NETWORKING ACADEMY.

PCAP: Programming Essentials in Python (May, 2023).

CCNAv7: Introduction to Networks (January, 2022).

GOOGLE, ANDELA AND PLURALSIGHT AFRICA DEVELOPERS SCHOLARSHIP (GADS).

Associate Cloud Engineering Certificate (March, 2023).

ALX-T AND UDACITY NANODEGREE SCHOLARSHIP PROGRAM.

Cloud Development Certificate (July, 2022).

AWARDS AND HONOURS

Vice Chancellor's Award - Overall Best Graduating Student, Federal University of Technology Owerri (2023)

Dean's Award- Best Graduating student in the School of Information and Communication Technology (2023)

HOD's Award – Best Graduating Student in the Department of Computer Science (2023)

FUTO Class of 92 Club Award - Best Graduating Student in the School of Information and Communication Technology (2023)

Nigeria Federation of Catholic Students FUTO - Most Disciplined Brother of the Year (2020)

MTN Foundation Science and Technology Undergraduate Scholarship Award (2019-2023)

Best 3rd Year Student Award - Department of Computer Science (2019)

COMMUNITY SERVICES

Supervised 8 computer science undergraduate students of Nasarawa State University Keffi, in their undergraduate final year project. (August 2023 – January 2024)

Mentored 3 co-students to complete their ALX Cloud Developer Nanodegree program with ALX and Udacity. (August – September, 2022)

PROFESSIONAL AFFILIATIONS

COMPUTER PROFESSIONALS (REGISTRATION COUNCIL OF NIGERIA).

Graduate Membership (February, 2023).

NIGERIA COMPUTER SOCIETY.

Graduate Membership (August, 2024).

LEADERSHIP AND VOLUNTEER EXPERIENCES

NATIONAL YOUTH SERVICE CORPS, NASARAWA, NASARAWA STATE.

Cadet-in-Chief, Road Safety Community Development Group (May – October, 2024)

Director of Outreach, Road Safety Community Development Group (February – May, 2024)

STUDENT UNION GOVERNMENT, FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI.

Independent Students' Electoral Commissioner (November – December, 2022)

Computer Science Course Representative (November 2017 – June 2023)

NIGERIA FEDERATION OF CATHOLIC STUDENTS (NFCS), FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI.

Chief Sacristan (President), Altar Servers Association (2020/2021 Academic Session)

Public Relations Officer, NFCS FUTO (2018/2019 Academic Session)

Editorial Chairman, De Lumen Press, NFCS FUTO (2018/2019 Academic Session)

SKILLS & ABILITIES

Technical Skills: Python3, Overleaf LaTex, Scikit-learn, TensorFlow, Numpy, Pandas, SQL queries, Git and GitHub, Streamlit, Flask, Windows and Kali Linux OS, System Administration and IT Security, Cloud Development (CICD, Docker, AWS, GCP, Azure).

Soft Skills: Excellent English communication skills (C1 Proficiency), Self-confidence, Time management, Presentation Skills and Good work ethics.

Desktop Publishing: Microsoft Office, Google Workspace, and Graphics design.